



THE AWARENESS OF INCISIONAL HERNIA IN PATIENTS WITH RESPECT TO BODY IMAGE AND COSMETIC SCORE.

General Surgery

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ABSTRACT

Introduction: Incisional hernia is defined as any abdominal wall gap with or without a bulge in the area of post-operative scar perceptible or palpable by clinical examination or imaging. One third of the patients with incisional hernia doesn't present with any symptoms. Many of them present with complaints of bulge over abdominal wall, cosmetic complaints, loss of body image, pain, functional disability. Little has been published on patients' awareness of incisional hernia following open abdominal surgery. The present study was undertaken to study the awareness of patients with incisional hernia. We also assessed the impact of incisional hernia on body image and cosmetic score.

Materials and Methods: A prospective study of 60 patients conducted in our hospital between July 2014 to September 2016. A detailed case history was taken to identify aetiological causes and precipitating factor, which included the awareness about the incisional hernia, clinical examination done to assess the anatomical defects and clinical diagnosis was established and necessary investigations were done to confirm and questionnaire was carried out according to pro-forma. Body Image Questionnaire (BIQ) consisted of a body image score and a cosmetic score. All statistical analyses were performed using Microsoft Excel software.

Results: Majority of the cases were females (61.7%). Thirty five patients were with body mass index (BMI) of 25 to 29.9. The most common symptom was pain (50%) followed by discomfort (45%). According to the body image score 55% patients were partially satisfied and 45% were not satisfied. Cosmetic score amongst patients was 58.3% average, followed by 38.3% poor and 3.3% good. Mean body image score was 10.97 (S.D.±2.41) in < 5 year duration. Mean cosmetic score was 12 (S.D.±2.85) in < 5 year duration, 12.04 (S.D.±2.16) in duration 6 to 10 years. Mean difference in both score was analyzed using F test and F value was 0.10 and 0.27 for body image and cosmetic score respectively which was statistically significant. Mean body image score was 9.82 (S.D.±1.83) in patients with awareness and 11.14 (S.D.±2.50) in patients without awareness of incisional hernia. Mean cosmetic score was 12.27 (S.D.±2.19) in patients with awareness group and 12.06 (S.D.±2.64) in patients without awareness group. Mean difference in both score was analyzed using MW test and Z value was 1.62 and 0.49 for body image and cosmetic score respectively which was statistically significant.

Conclusion: Majority of patients with incisional hernia were not aware of their disease. Body image score and Cosmetic score was less in younger patients who presented earlier than older patient with more Body image and Cosmetic score with complaints of incisional hernia. Patients with less BMI had poor Body image and Cosmetic score than those with BMI of more than 25 kg/m².

KEYWORDS

Introduction:

Incisional hernia is defined as any abdominal wall gap with or without a bulge in the area of post-operative scar perceptible or palpable by clinical examination or imaging.[1] It is a common postoperative complication following open abdominal surgery with incidence varying between 3% and 20%.[2]

One third of the patients with incisional hernia doesn't present with any symptoms [3] whereas, many of them present with complaints of bulge over abdominal wall, cosmetic complaints, loss of body image, pain, functional disability.[4,5]

Incisional hernias may also affect patient centered outcomes such as body image and functional status.[6] Studies demonstrated that patients with an incisional hernia had lower mean scores on physical components of health related quality of life and body image.[6,7]

Incisional hernia develops due to failure of the lines of closure of abdominal wall following laparotomy.[3] The approximated tissues separate and the abdominal organs, mainly bowel bulges through the gap which is covered from inside outwards with peritoneum scar tissue and skin.[4]

Little has been published on patients' awareness of incisional hernia following open abdominal surgery. The present study was undertaken to study the awareness of patients with incisional hernia. We also assessed the impact of incisional hernia on body image and cosmetic score.

Materials and Methods:

A prospective study of 60 patients conducted in our hospital between July 2014 to September 2016. Demographic details of all patients were recorded. All patients of Incisional hernia > 21 years of age were included in the study. Patients with previous abdominal surgery < 1 year, divarication of recti, complicated incisional hernia and female pregnant patients were excluded in this study.

A detailed case history was taken to identify aetiological causes and precipitating factor, which included the awareness about the incisional hernia, clinical examination done to assess the anatomical defects and clinical diagnosis was established and necessary investigations were done to confirm and questionnaire was carried out according to pro-forma.

Body Image Questionnaire (BIQ) consisted of a body image score and a cosmetic score.

Body Image Score :

For each item 1 to 4 points are awarded, resulting in total score between 5 and 20.

- Are you less satisfied with your body since the operation?
- Do you think the operation has damaged your body?
- Do you feel less attractive as a result of your operation?
- Do you feel less feminine/masculine as a result of your operation?
- Is it difficult to look at yourself in the mirror?

5 – 10 : (Not satisfied), 11 – 15: (Partially satisfied), 16 – 20: (Fully satisfied)

Cosmetic score:

Which ranges between 3 and 24 points. Higher scores represent higher satisfaction.

- A) On a scale of 1 to 7, how satisfied are you with your scar?
 - B) On a scale from 1 to 7, how would you describe your scar?
 - C) Could you score your own scar on a scale from 1 to 10?
- 3 – 10 (Poor) 11 – 17 (Average) 18 – 24 (Good)

The results are presented with a 95% confidence interval and a P-value of <0.05 was considered as statistically significant. All statistical analyses were performed using Microsoft Excel software.

Results:

Out of 60 patients participated in this study majority of the cases were females (61.7%) and remaining were male (38.3%). Thirty five patients were with body mass index (BMI) of 25 to 29.9, followed by 22 cases with BMI < 25 and remaining 3 cases with BMI of 30 and above.

The most common symptom was pain (50%) followed by discomfort (45%), and constipation and urinary complaint (20%).[Table:1]

Table 1 : Symptoms wise distribution of cases in study group

Symptoms	No of cases	Percentage (n=60)
Pain	30	50
Discomfort	27	45
Constipation	12	20
Urinary complaint	12	20

According to the body image score 55% patients were partially satisfied and 45% were not satisfied.[Table:2]

Table 2: Body image score in study group :

Body image score	No of cases	Percentage
5 – 10 (Not satisfied)	27	45
11 – 15 (Partially satisfied)	33	55
16 – 20 (Fully satisfied)	0	0
Total	60	100

Cosmetic score amongst patients was 58.3% average, followed by 38.3% poor and 3.3% good.[Table:3]

Table 3: Distribution of patients according Cosmetic score :

Cosmetic score	No of cases	Percentage
3 – 10 (Poor)	23	38.33
11 – 17 (Average)	35	58.34
18 – 24 (Good)	2	3.33
Total	60	100

The comparison of body image score and cosmetic score to BMI showed mean body image score was 10.41 (S.D.±2.34) in BMI < 25, 11.03 (S.D.±2.44) in BMI 25 to 29.9 and 13 (S.D.±2.64) in BMI 30 and above. Mean cosmetic score was 12.14 (S.D.±1.93) in BMI < 25, 12.20 (S.D.±2.94) in BMI 25 to 29.9 and 10.67 (S.D.±1.15) in BMI 30 and above. Mean difference in both score was analyzed using F test and F value was 1.64 and 0.49 for body image and cosmetic score respectively which was statistically significant.[Table :4]

Table 4: Comparison of Body image score and cosmetic score to BMI of patients :

BMI	Numbers (n)	Body image score		Cosmetic score	
		Mean	SD	Mean	SD
<25	22	10.41	2.343	12.14	1.935
25 – 29.9	35	11.03	2.443	12.20	2.949
30 & above	3	13.00	2.646	10.67	1.155
F Value		1.64		0.49	
P Value		0.42		0.39	

Mean body image score was 10.97 (S.D.±2.41) in < 5 year duration, 10.74 (S.D.±2.44) in duration 6 to 10 years and 11.17 (S.D.±2.04) in duration of more than 10 yrs. Mean cosmetic score was 12 (S.D.±2.85) in < 5 year duration, 12.04 (S.D.±2.16) in duration 6 to 10 years and 12.83 (S.D.±2.56) in duration of more than 10 yrs. Mean difference in both score was analyzed using F test and F value was 0.10 and 0.27 for

body image and cosmetic score respectively which was statistically significant.[Table: 5]

Table 5: Comparison of Body image score and cosmetic score according to duration of past abdominal surgery in study group :

Duration	Numbers(n)	Body image score		Cosmetic score	
		Mean	SD	Mean	SD
1-5	31	10.97	2.415	12.00	2.852
6 – 10	23	10.74	2.649	12.04	2.163
>10	6	11.17	2.041	12.83	2.563
F Value		0.10		0.27	
P Value		0.91		0.76	

Mean body image score was 9.82(S.D.±1.83) in patients with awareness and 11.14 (S.D.±2.50) in patients without awareness of incisional hernia. Mean cosmetic score was 12.27 (S.D.±2.19) in patients with awareness group and 12.06 (S.D.±2.64) in patients without awareness group. Mean difference in both score was analyzed using MW test and Z value was 1.62 and 0.49 for body image and cosmetic score respectively which was statistically significant.[Table: 6]

Table 6: Comparison of Body image score and cosmetic score according to awareness in study group :

Score	Awareness				MW test Z Value	P Value
	Yes (n=11)		No (n=49)			
	Mean	SD	Mean	SD		
Body image	9.82	1.834	11.14	2.508	1.62	0.05
Cosmetic	12.27	2.195	12.06	2.641	0.49	0.63

Discussion:

Majority of the cases in this study were in the age group of 41 to 60 years followed by 12 cases in age group of 61 to 70 yrs. Hamid Hindi Sarhan et al found that age group common for incisional hernia was 41 to 60 years in their study.[8] Majority of the cases were females with incisional hernia as compared to males in our study and same findings were observed in other studies.[9]

We found that 35 patients were obese in our study and 22 were with BMI less than 25. Hoer J et al. found similar findings in their study too.[10] Aquina CT et al investigated 41 patients and found that BMI was more than 30 among the majority of the patients with incisional hernia.[11]

Pain was the most common complaint followed by discomfort in our patients of incisional hernia. One study showed that main symptoms were pain, discomfort and cosmetic complaints in patients with incisional hernia.[12]

We noticed that, 31 patients had duration of incisional hernia of < 5 years after primary surgery, 23 cases had duration of 6 to 10 years. Another studies showed that maximum patients in their study had duration of more than 3 years and 4 years respectively after primary surgery in patients with incisional hernia.[9,10]

In our study, body image score was partially satisfied in maximum patients. Van Ramshorst et al. in study of 374 patients found that only few patients had low cosmetic score and body image score.[7] Both body image score and cosmetic score was statistically associated with body mass index among the cases with incisional hernia and duration of incisional hernia among the cases with incisional hernia in our as well as other studies. [7,9,10]

Conclusion:

Our study showed that majority of patients with incisional hernia were not aware of their underlying disease and young patients were more aware than the older ones. We found that Body image score and Cosmetic score was less in younger patients who presented earlier than older patient with more Body image and Cosmetic score with complaints of incisional hernia.

We also found, that irrespective of age those patients with less BMI had poor Body image and Cosmetic score than those with BMI of more than 25 kg/m2 and presented earlier with complaints of incisional hernia. One of the main strengths of our study was that multiple outcomes such as awareness and symptoms have been investigated.

REFERENCES

1. James Grieve. Celsus AC of medicine. BMJ 1991; 45: 22-8.
2. Sanders DL, Kingsnorth AN. The modern management of incisional hernias. BMJ 2012;344:24-8.
3. Mudge M, Hughes LE. Incisional hernia: A 10 year prospective study of incidence and attitudes. Br J Surg 1985;72(1):70-1.
4. Courtney CA, Lee AC, Wilson C, O'Dwyer PJ. Ventral hernia repair: a study of current practice. Hernia 2003;7(1):44-6.
5. Hesselink VJ, Luijendijk RW, de Wilt Jh, heide R, Jeekel J: An Evaluation of risk factors in incisional hernia recurrence. Surg Gynecol Obstet 1993;176(3):228-34
6. Nieuwenhuizen J, Kleinrensink GJ, Hop WC, Jeekel J, Lange JF. Indications for incisional hernia repair: an international questionnaire among hernia surgeons. Hernia 2008;12(3):223-5.
7. Van Ramshorst GH, Hasan HE, Hop WC, Jeekel J, Lange JF. Impact of incisional hernia on health-related quality of life and body image: a prospective cohort study. Am J Surg 2012;204(2): 144-50.
8. Publio PA. Closure of abdominal wounds with continuous non absorbable sutures experience in 1697 cases. Int Surg 1991;76:15-7.
9. Sudhir Dnyandeo Bhamre and Nitin Devidas Pingale. A Clinical Study of Incisional Hernia. MVP Journal of Medical Sciences, January 2016; Vol 3(1):1-6.
10. Hoer J, Lawong G, Klinge U, Schumpelick V. Factors influencing the development of incisional hernia. A retrospective study of 2,983 laparotomy patients over a period of 10 years. Chirurg. 2002 May;73(5):474-80
11. Aquina CT et al. Visceral obesity, not elevated BMI, is strongly associated with incisional hernia after colorectal surgery. Dis Colon Rectum. 2015 Feb;58(2):220-7.
12. Elliott Yann Ah-kee, Thomas Kallachil, Patrick J. O'Dwyer: Patient Awareness and Symptoms From an Incisional Hernia. Int Surg 2014;99:241-6.